

[54] APPARATUS FOR DISPENSING MEDIUM TO HIGH VISCOSITY LIQUIDS WITH LIQUID FLOW DETECTOR AND ALARM

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[57] ABSTRACT

A medium to high viscosity liquid flow detector and alarm sub-system for use with apparatus for automatic liquid dispensing machines for mastics, sealants, adhesives, and the like, comprising a liquid pressure sensing device disposed in the liquid flow path of the liquid dispensing gun of the machine. The liquid pressure sensing device derives an output electrical signal indicative of the instantaneous liquid pressure in the liquid flow path. A differentiating circuit differentiates the liquid pressure indicating signal to derive a rate of change in fluid pressure signal. The rate-of-change signal is supplied to an indicator for signalling the existence of an undesired rate-of-change in liquid pressure condition and is indicative of a bubble or void in the liquid mastic, sealant, or the like being dispensed. The rate-of-change signal is supplied to a first comparator which also has supplied thereto an input bubble size reference signal that establishes a predetermined size bubble or void below which no alarm signal will be produced. Upon the occurrence of a bubble or void which is greater than that established by the adjustable bubble size reference signal, an output alarm signal is produced.

28 Claims, 3 Drawing Figures

